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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,373	06/22/2001	Kathy T. Stark	80168-0123	5675

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EXAMINER	
CHANKONG, DOHM	
ART UNIT	**PAPER NUMBER**
2152	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,373	STARK ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5-11,14,16-18,21-26,31,36-39 and 41-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5-11,14,16-18,21-26,31,36-39 and 41-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> This action is in response to Applicant's amendment and remarks in the after final response. Claims 1, 3, 5-11, 14, 16-18, 21-26, 31, 36-39 and 41-80 are presented for further examination.

2> The last office action is withdrawn and vacated in light of new prior art references and therefore the applicant's amendment will not be entered. This action is a final rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3> Claims 1, 5-11, 14, 16-17, 21-26 are rejected under 35 U.S.C § 103(a) as being unpatentable over Olmstead et al, U.S Patent Publication No. 2004|0049573 ["Olmstead"], in view of Azagury et al, U.S Patent No. 6.493.716 ["Azagury"].

4> As to claim 1, Olmstead discloses a network having a plurality of nodes running services that collaborate to provide a distributed environment for one or more applications [abstract], comprising:

a master node within said plurality of nodes, said master node including a primary

server to run a centralized system service comprising a cluster membership monitor running to manage membership of a set of the plurality of nodes in a cluster [Figure 2 | Figure 4 | 0001, 0031];

a vice node within the plurality of nodes, the vice node including a secondary server to run the centralized system service when the master node is unable or unavailable to run the centralized system service [0031, 0059]; and

a system services coordinator on each of said plurality of nodes in the cluster to coordinate a function defining an operational transition in the cluster and regarding said centralized system service [Figure 3 «items 220, 260» | 0030, 0076 | Table 2 – "srClusterSetNodeOffline", "srClusterSetNodeOnline", etc where : each node runs the CMS].

Olmstead also discloses a system services coordinator processes the callback actions for said centralized system service as part of the function coordinated by the system services coordinator [0027 where : Olmstead's messaging service is analogous to the functions coordinated by the system services coordinator] but does not explicitly disclose registering callback actions with said system services coordinator.

5> Olmstead discloses specifying callback functions with each message that is received, the message is a function coordinated by the CMS' on each node, implicitly suggesting that the callbacks have been registered. Furthermore, Azagury discloses callbacks registered as part of the function coordinated by coordinators (FGM) [column 3 «lines 12-27» | column 11 «lines 43-47»]. It would have been obvious to one of ordinary skill in the art to incorporate

Azagury's registration of the callbacks into Olmstead's system so that his nodes can utilize the callbacks for particular messages.

6> As to claims, 5, 6, 7, 8, 9 and 10 Olmstead discloses the network of claim 1, wherein said functions are initilization function [0067], a shut down function [0061], a promote function [0075], a demote function [0075], a disqualify function [0031 : "some nodes in the cluster that may never be allowed to become the cluster manager..."], and a qualify function [0031, 0032 : by implication, since there are some nodes that may never be allowed to be manager, there should be a function to signal when a node is qualified to be manager thus allowing other nodes to elect it].

7> As to claim 11, Olmstead discloses the network of claim 1, wherein said plurality of nodes includes a master-eligible node [0031 : "backup"].

8> As to claim 14, Olmstead discloses a node within a network of nodes for exchanging information, comprising:

a centralized system service to run on a primary server on the node, the centralized system service comprising a mechanism for monitoring membership of a set of the network nodes in a cluster providing a distributed application environment [Figure 1 | Figure 4 | 0012, 0013, 0030, 0033];

a system services coordinator to coordinate a transitional function regarding said centralized system service [0033-0054]; and

a high availability level and an operating system level, wherein said system service coordinator resides in said high availability level and wherein said centralized system service is at least partially resides in the operating system level [Figure 1 | 0030 where : Olmstead's cluster manager and DMS are in the availability level above the operating system, and the cluster manager interacts with the O/S].

Olmstead discloses wherein said transitional function includes a sequence used by the system services coordinator in performance of the transitional function including transition to an appropriate availability states [0027, 0053, 0067 where : incorporating a node into the cluster is comparable to a transitional function], but does not explicitly disclose that the sequence is a callback sequence.

9> Azagury discloses a transitional functional including a callback sequence [column 5 «lines 1-25»]. It would have been obvious to incorporate Azagury's callback and message sequencing into Olmstead's cluster system so that callbacks can be specifically defined for each message within a sequence. One would have been motivated to provide such functionality into Olmstead so that specific callbacks can be invoked in a sequence to handle messages in the order they are reeieved [see Azagury column 2 «lines 57-63»].

10> As to claims 16 and 17, Olmstead discloses the node of claim 14, wherein said centralized system service comprises a naming service [0024], or a component role assignment manager [0042].

11> As to claims 21-26, as they are merely nodes that implement the same functionality of the network of claims 5-10, respectively, it does not teach or further define over the claimed limitations. Therefore, claims 21-26 are rejected for the same reasons set forth in claims 5-10, supra.

12> As to claim 47, Olmstead discloses a method for coordinating initialization in a network having a plurality of nodes, comprising:

registering centralized system services within said network with a system services coordinator [0032, 0033];

electing a master node within said network and sending information on said master node to said plurality of nodes [0032, 0033];

using callbacks at said system services coordinator to trigger initialization levels at said plurality of nodes [0027, 0042, 0047, 0052, 0075]; and

informing said plurality of nodes when said master node completes said initialization levels via said system services coordinator [0061, 0075].

Olmstead does not explicitly disclose registering callback actions with said system services coordinator.

13> Olmstead discloses specifying callback functions with each message that is received, the message is a function coordinated by the CMS' on each node, implicitly suggesting that the callbacks have been registered. Furthermore, Azagury discloses callbacks registered as part of the function coordinated by coordinators (FGM) [column 3 «lines 12-27» | column 11

«lines 43-47»]. It would have been obvious to one of ordinary skill in the art to incorporate Azagury's registration of the callbacks into Olmstead's system so that his nodes can utilize the callbacks for particular messages.

14> As to claim 48, Olmstead discloses the method of claim 47 further comprising registering said system services coordinator with a membership monitor within said network [0051].

15> As to claim 49, Olmstead discloses the method of claim 48, wherein said electing includes claiming said master node by said membership monitor [0033].

16> As to claim 50, Olmstead discloses the method of claim 47, further comprising reading a configuration table of said network [0022].

17> As to claim 51, Olmstead discloses the method of claim 47, further comprising electing a vice node within said network [0031].

18> Claims 3 and 18 are rejected under 35 U.S.C § 103(a) as being unpatentable over Olmstead and Azagury in view of Sun et al, U.S Patent Publication No. 2002/0152373 A1 ["Sun"].

19> As to claim 3, Olmstead does not specifically disclose a network wherein said master node communicates via a carrier grade transport protocol.

20> Sun discloses a network wherein nodes communicate via a carrier grade transport protocol [paragraphs 0060 and 0071] for the obtained advantage of creating a more robust and manageable system. It would have been obvious to one of ordinary skill in the art to incorporate carrier grade transport protocol into Olmstead's system to take advantage of the benefits provided by protocol as taught by Sun such as simplifying the provisioning, configuration and management of network services.

21> As to claim 18, as it is merely is a node that implements the same functionality of the network of claim 3, it does not teach or further define over the limitations of claim 3. Therefore, claim 14 is rejected for the same reasons set forth in claim 3, supra.

22> Claims 31, 36-39, 41-46 and 52-80 are rejected under 35 U.S.C § 103(a) as being unpatentable over Sreenivasan et al, U.S Patent Pub 2002|0049845 ["Sreenivasan"], Olmstead and Azagury, in further view of O'Brien et al, U.S Patent Publication No. 2005|0071470 ["O'Brien"].

23> As to claim 31, Sreenivasan discloses a method for coordinating a system service within a network having a plurality of nodes, the system service comprising a cluster membership monitor for managing a cluster including a set of the plurality of nodes, comprising:

receiving a request at a system services coordinator on a master node, said system services coordinator having a component at each of said plurality of nodes in the cluster [Figure 2 | 0009, 0026];

using said callback sequence for performing a function at one of said plurality of nodes in response to said request [0067 : incorporating a node]; and

reacting to said function by said sytem services coordinator on said node and communicating a reaction to said system services coordinator [0052, 0053].

Sreenvasan does not disclose registering a callback sequence with said system services coordinator or that invoking callback functions has levels, said levels correlating to completing stages of said callback functions nor does he disclose receiving said levels as said stages are completed.

24> While Sreenivasan discloses using commands for performing a function at one of said plurality of nodes in response to said request [paragraphs 0032, 0112, 0116] but does not specifically disclose using a callback sequence. Azagury discloses callbacks registered as part of the function coordinated by coordinators (FGM) and a callback sequence [column 3 «lines 12-27» | column 5 «lines 1-25» | column 11 «lines 43-47»]. It would have been obvious to one of ordinary skill in the art to incorporate Azagury's registration of the callbacks into Sreenivasan's system so that his nodes can utilize the callbacks for particular messages.

Sreenivasan also does not specifically disclose invoking callbacks with levels that represent stages of completion. Callback routines are equivalent to invoking a program or calling a subroutine. The use of levels within the invoking of a callback is analogous to the

reporting checkpoint to track progress of a process/program. In this regard, O'Brien discloses callback functions with levels, said levels corresponding to completing stages of said functions and receiving said levels as said stages are completed [0176, 0178, 0180, 0181, 0254 where : checkpoints of the operations are analogous to the levels of a function and the manager receives the checkpoint data as the checkpoints are completed]. It would have been obvious to one of ordinary skill in the art to incorporate O'Brien's checkpoint functionality into Sreenivasan's system to enable failover during failure of the nodes in the system. Such functionality is achieved by providing checkpoints for transactions as they are processed.

25> As to claim 36, Sreenivasan discloses the method of claim 31, further comprising transitioning said system services according to said callback sequence [paragraphs 0085, 0086, 0087, 0088, 0092, 0137, 0138, 0143].

26> As to claim 37, Sreenivasan discloses the method of claim 31, further comprising interfacing said system services with said plurality of nodes [abstract | Figure 1 | paragraph 0079].

27> As to claim 38, Sreenivasan does not disclose the method of claim 31, further comprising:

determining phases of said command sequence, said phases correlating to stages of completing said function;

receiving said phases at said system services coordinator; and

publishing events from said node by said system services coordinator correlating to said received phases.

28› O'Brien discloses the method of claim 31, further comprising:

determining levels of said command sequence, said phases correlating to stages of completing said function [0180, 0181 where : O'brien's checkpoints are analogous to levels and a transaction is analogous to sequence];

receiving said levels at said system services coordinator [0180, 0181]; and

publishing events from said node by said system services coordinator correlating to said received levels [0180-0191].

Callback routines are equivalent to invoking a program or calling a subroutine. The use of levels within the invoking of a callback is analogous to the reporting checkpoint to track progress of a process/program. In this regard, O'Brien discloses callback functions with levels, said levels corresponding to completing stages of said functions and receiving said levels as said stages are completed [0176, 0178, 0180, 0181, 0254 where : checkpoints of the operations are analogous to the levels of a function and the manager receives the checkpoint data as the checkpoints are completed]. It would have been obvious to one of ordinary skill in the art to incorporate O'Brien's checkpoint functionality into Sreenivasan's system to enable failover during failure of the nodes in the system. Such functionality is achieved by providing checkpoints for transactions as they are processed.

29› As to claim 39, Sreenivasan does not disclose the method of claim 38, further communicating said levels to said system service server.

30› O'Brien discloses a method communicating said levels to said system service server [0180, 0181]. Callback routines are equivalent to invoking a program or calling a subroutine. The use of levels within the invoking of a callback is analogous to the reporting checkpoint to track progress of a process/program. In this regard, O'Brien discloses callback functions with levels, said levels corresponding to completing stages of said functions and receiving said levels as said stages are completed [0176, 0178, 0180, 0181, 0254 where : checkpoints of the operations are analogous to the levels of a function and the manager receives the checkpoint data as the checkpoints are completed]. It would have been obvious to one of ordinary skill in the art to incorporate O'Brien's checkpoint functionality into Sreenivasan's system to enable failover during failure of the nodes in the system. Such functionality is achieved by providing checkpoints for transactions as they are processed.

31› As to claim 41, Sreenivasan discloses the method of claim 31, further comprising initializing a node in the cluster, the initializing comprising:

registering said system service on said node with one of the components of the system services coordinator [paragraphs 0078, 0079, `0083, 0084 where: membership server is analogous to system services coordinator, and set of interfaces comparable to callback sequence];

triggering an initializing function having levels [paragraphs 0139, 0168]; and

receiving notification at said system services coordinator for completing said levels [paragraph 0139].

32> Olmstead discloses specifying callback functions with each message that is received, the message is a function coordinated by the CMS' on each node, implicitly suggesting that the callbacks have been registered. Furthermore, Azagury discloses callbacks registered as part of the function coordinated by coordinators (FGM) [column 3 «lines 12-27» | column 11 «lines 43-47»]. It would have been obvious to one of ordinary skill in the art to incorporate Azagury's registration of the callbacks into Olmstead's system so that his nodes can utilize the callbacks for particular messages.

33> As to claim 42, Sreenivasan discloses the method of claim 41, further comprising retrieving boot parameters for said node [paragraph 0061 where: the state of the failed server is analogous to boot parameters as the state is used to initialize the backup node].

34> As to claim 43, Sreenivasan discloses the method of claim 41, further comprising starting up an operating system on said node [paragraphs 0027 and 0037].

35> As to claim 44, Sreenivasan discloses the method of claim 41, further comprising loading a configuration table of said network [paragraph 0149, 0155 where: Sreenivasan's GCS function keeps the nodes of the network up to date with the configuration of said network which is analogous in functionality to the claimed configuration table].

36> As to claim 45, Sreenivasan discloses the method of claim 41, further comprising participating in formation protocol for said network by sending information about said node [paragraphs 0110, 0152, 0155].

37> As to claim 46, Sreenivasan discloses the method of claim 41, comprising initializing non-centralized system services on said node by registering said non-centralized system services with said system services coordinator [paragraphs 0079, 0263].

38> As to claim 52, Sreenivasan discloses the method of claim 31, further comprising switching over the master node having primary servers for the centralized system services, comprising:

informing the system services coordinator on said master node of a loss of master eligibility on said master node [paragraphs 0063, 0073];

invoking switchover callbacks registered at said system services coordinator [paragraphs 0063, 0073 where: Sreenivasan's commands are analogous to the callbacks]; and

transferring states of said primary servers to secondary servers for said centralized system services at a vice node [paragraphs 0017, 0063].

39> As to claim 53, Sreenivasan discloses the method of claim 52, further comprising updating said plurality of nodes on said transferred states via said system services coordinator [paragraph 0097, 0134].

40> As to claim 54, Sreenivasan discloses the method of claim 52, further comprising updating non-centralized system services via said system services coordinator [paragraphs 0249, 0250, 0251, 0261].

41> As to claim 55, Sreenivasan discloses the method of claim 52, further comprising triggering a switchover condition on said master node [abstract | paragraph 0017].

42> As to claim 56, Sreenivasan discloses the method of claim 31, further comprising failing the master node having primary servers for the centralized system services, the failing comprising:

claiming mastership of said network at a vice node and informing said centralized system services via the system services coordinator [paragraphs 0026, 0061, 0063, 0262, 0263]; and

recovering states of said primary servers on said master node to secondary servers of said centralized system services on said vice node [paragraph 0017, 0022].

43> As to claim 57, Sreenivasan discloses the method of claim 56, further comprising detecting that said primary servers have been transferred [abstract | paragraph 0026].

44> As to claim 58, Sreenivasan discloses the method of claim 56, further comprising synchronizing a reconnection to said centralized system services at said plurality of nodes via said system services coordinator [paragraph 0248].

45> As to claim 59, Sreenivasan discloses the method of claim 56, further comprising detecting a failover condition at said master node [paragraphs 0017, 0026].

46> As to claim 60, Sreenivasan discloses the method of claim 56, further comprising electing another vice node [paragraphs 0020, 0065].

47> As to claim 61, Sreenivasan discloses the method of claim 31, further comprising demoting a master eligible node among the set of the nodes in the cluster within the network, the demoting comprising:

initiating a demote callback sequence from the system services coordinator [paragraph 0063 where: removing a failed primary node by assigning a backup as the new primary is comparable in functionality to a demote function (for the failed primary node).];

transitioning centralized system services servers on said master-eligible node to a spare state [paragraph 0061, 0238]; and

updating said system services coordinator [paragraph 0169, 0173, 0181].

48> As to claim 62, Sreenivasan discloses the method of claim 61, further comprising triggering a switchover condition on said master-eligible node [abstract | paragraphs 0017, 0026].

49> As to claim 63, Sreenivasan discloses the method of claim 61, further comprising detecting a failover condition on said master-eligible node [paragraphs 0017, 0026].

50> As to claim 64, Sreenivasan discloses the method of claim 61, further comprising notifying said system services coordinator that said master-eligible node is to be demoted [paragraphs 0073, 0209].

51> As to claim 65, Sreenivasan discloses the method of claim 31 further comprising promoting a node in the set of nodes to be master eligible, the promoting comprising:

initiating a promote callback sequence from the system services coordinator [paragraphs 0015, 0073 where: it would have been obvious for one of ordinary skill in the art to have reasonably inferred that Sreenivasan's method of assigning a backup node to be the new primary as equivalent to a promote function];

transitioning centralized system services servers on said promoted node to an availability state [paragraph 0061, 0238]; and

updating said system services coordinator [paragraph 0169, 0173, 0181].

52> As to claim 66, Sreenivasan discloses the method of claim 65, further comprising notifying said system services coordinator that said promoted node is to be promoted [paragraphs 0073, 0074, 0076, 0250].

53> As to claim 67, Sreenivasan discloses the method of claim 31, further comprising disqualifying a node in the cluster from being master eligible within a network for exchanging information, the disqualifying comprising:

initiating a disqualify callback sequence from a system services coordinator [paragraphs 0222, 0226, 0246 where: Sreenivasan's function checks a flag before allowing a node to join the cluster (where the setting of the flag to false disqualifies the node)];

setting a master eligible attribute at said node [paragraphs 0222, 0226];

transitioning centralized system servers on said node to an offline state [paragraph 0061, 0238, 0246].

54> As to claim 68, Sreenivasan discloses the method of claim 66, further comprising notifying said system services coordinator that said promoted node is to be disqualified [paragraphs 0073, 0074, 0076, 0250].

55> As to claim 69, Sreenivasan discloses the method of claim 31 further comprising qualifying a node in the cluster to be master eligible, the qualifying comprising:

initiating a qualify callback sequence from the system services coordinator

[paragraphs 0220, 0226 where: a function that checks a flag before allowing a node to join the cluster (where the setting of the flag to true qualifies the node)];

setting a master eligible attribute at said qualified node [paragraphs 0222, 0226];

transitioning centralized system servers on said qualified node to a spare state [paragraph 0061, 0238].

56> As to claim 70, Sreenivasan discloses the method of claim 69 further comprising notifying said system services coordinator that said qualified node is to be promoted [paragraphs 0073, 0074, 0076, 0250].

57> As to claim 71, Sreenivasan discloses the method of claim 31, further comprising shutting down a node in the cluster, the shutting down comprising:

invoking callbacks of centralized system services on said shutdown node by a system services coordinator [paragraphs 0079, 0081, 0083];

requesting said shutdown node to be removed from said network by said system services coordinator [paragraph 0076, 0246]; and

terminating said system services coordinator [paragraph 0135].

58> As to claim 72, Sreenivasan discloses the method of claim 71, further comprising terminating said centralized system services when all messages and commands are received at said system services coordinator [paragraph 0139 where: Sreenivasan's commands are analogous to callbacks].

59> As to claim 73, Sreenivasan discloses the method of claim 71, further comprising shutting down said operating system at said shutdown node [paragraph 0037, 0151].

60> As to claim 74, Sreenivasan discloses the method of claim 71 wherein said node is the master node within said network [paragraphs 0027, 0063, 0079].

61> As to claim 75, Sreenivasan discloses the method of claim 74 further comprising initiating a switchover on said master node [abstract | paragraph 0017].

62> As to claim 76, Sreenivasan discloses the method of claim 71, wherein said shutdown node is a vice node within said network [paragraphs 0015, 0063 where: Sreenivasan's N2 (backup) has equivalent functionality to the claimed vice node].

63> As to claim 77, Sreenivasan discloses the method of claim 76, further comprising initializing another vice node [paragraph 0020 where: there are several backup copies to the primary node that are analogous to a vice node].

64> As to claim 78, Sreenivasan discloses the method of claim 71, further comprising rebooting said shutdown node [paragraph 0063].

65> As to claim 79, Sreenivasan discloses a method of claim 31 for removing a node from the cluster, the removing comprising:

initiating a shutdown callback sequence from the system services coordinator,

wherein

said shutdown callback sequence includes levels [paragraphs 0085, 0241, 0243 where: the CMS can force a reset of a node, the "reset" functionality comparable to a shut down function and his phases are comparable to levels];

notifying said system services as said levels are completed and terminating centralized system services on said removed node [paragraphs 0085, 0089, 0110, 0134, 0135, 0151]; and

terminating said system service coordinator [paragraph 0135].

66> As to claim 80, Sreenivasan discloses the method of claim 79, further comprising requesting said removed node to be deleted from said cluster [paragraph 0263].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC

Dung C. Dinh
Primary Examiner